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**SECTION I**

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**PRODUCT IDENTIFIER** ZYB151 KLENKS TUB & TILE WHITE  
**DATE OF PREPARATION** JANUARY 8, 1999  
**PRODUCT USE** PROTECTIVE COATING

**MANUFACTURED BY:** ICI PAINTS NORTH AMERICA, 925 EUCLID AVENUE,  
CLEVELAND, OHIO 44115, U.S.A.  
ICI PAINTS (CANADA), 8200 KEELE STREET,  
CONCORD, ONTARIO L4K 2A5, CANADA.

**EMERGENCY AND MSDS TELEPHONE NUMBER:**  
1-800-545-2643

**MSDS PREPARED BY:** PRODUCT SAFETY AND TOXICOLOGY DEPARTMENT  
ICI PAINTS NORTH AMERICA

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**SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS**

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	INGREDIENT	WT. %:
CHEMICAL NAME COMMON NAME : CAS NUMBER:	2-PENTANONE, 4-METHYL- METHYL ISOBUTYL KETONE 108-10-1	5-10
CHEMICAL NAME COMMON NAME : CAS NUMBER:	2-PROPANOL, 1-METHOXY-, ACETATE PROPYLENE GLYCOL MONOMETHYL ETHER 108-65-6	5-10
CHEMICAL NAME COMMON NAME : CAS NUMBER:	BENZENE, DIMETHYL- XYLENE 1330-20-7	1-5
CHEMICAL NAME COMMON NAME : CAS NUMBER:	TITANIUM OXIDE TITANIUM DIOXIDE 13463-67-7	30-40
CHEMICAL NAME COMMON NAME : CAS NUMBER:	QUARTZ QUARTZ 14808-60-7	1-5
CHEMICAL NAME COMMON NAME : CAS NUMBER:	ALUMINUM HYDROXIDE ALUMINUM HYDROXIDE 21645-51-2	1-5
CHEMICAL NAME COMMON NAME : CAS NUMBER:	PHENOL, 4,4'-((1-METHYLETHYLIDENE)BIS-, POLYMER WITH 2,2'-((1-METHYLETHYLIDENE)BIS (4,1-PHENYLENEOXYMETHYLENE))BIS(OXIRANE) EPOXY RESIN 25036-25-3	20-30
CHEMICAL NAME COMMON NAME : CAS NUMBER:	FORMALDEHYDE FORMALDEHYDE 50-00-0	.01-.1
CHEMICAL NAME COMMON NAME : CAS NUMBER:	1-BUTANOL, 2-METHYL-, ACETATE 2-METHYLBUTYL ETHANOATE 624-41-9	1-5
CHEMICAL NAME COMMON NAME :	ACETIC ACID, PENTYL ESTER N-AMYL ACETATE	5-10

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**SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS**

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CAS NUMBER: 628-63-7

CHEMICAL NAME: SILICA

COMMON NAME: AMORPHOUS SILICA

CAS NUMBER: 7631-86-9

1-5

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**SECTION 3: HAZARDS IDENTIFICATION**

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**PRIMARY ROUTE(S) OF EXPOSURE**

INHALATION, SKIN CONTACT, EYE CONTACT, INGESTION.

**EFFECTS OF OVEREXPOSURE****INHALATION**

PROLONGED INHALATION MAY LEAD TO LOSS OF APPETITE, MUCOUS MEMBRANE IRRITATION, FATIGUE, DROWSINESS, DIZZINESS AND/OR LIGHTHEADEDNESS, HEADACHE, UNCOORDINATION, NAUSEA, VOMITING, DIARRHEA, GASTRO-INTESTINAL DISTURBANCES, BLURRED VISION, COUGHING, DIFFICULTY WITH SPEECH, CENTRAL NERVOUS SYSTEM DEPRESSION, ANESTHETIC EFFECT OR NARCOSIS, DIFFICULTY OF BREATHING, TREMORS, LIVER DAMAGE, KIDNEY DAMAGE, LOSS OF CONSCIOUSNESS, RESPIRATORY FAILURE, ASPHYXIATION, DEATH.

**SKIN CONTACT**

IRRITATION OF SKIN. PROLONGED OR REPEATED CONTACT CAN CAUSE DERMATITIS, DEFATTING, BLISTERING. SKIN CONTACT MAY RESULT IN DERMAL ABSORPTION OF COMPONENT(S) OF THIS PRODUCT WHICH MAY CAUSE DROWSINESS, DIZZINESS AND/OR LIGHTHEADEDNESS.

**EYE CONTACT**

IRRITATION OF EYES. PROLONGED OR REPEATED CONTACT CAN CAUSE CONJUNCTIVITIS, BLURRED VISION, TEARING OF EYES, REDNESS OF EYES, SEVERE EYE IRRITATION, CORNEAL INJURY.

**INGESTION**

INGESTION MAY CAUSE LUNG INFLAMMATION AND DAMAGE DUE TO ASPIRATION OF MATERIAL INTO LUNGS, MOUTH AND THROAT IRRITATION, DROWSINESS, HEADACHE, NAUSEA, VOMITING, DIARRHEA, GASTRO-INTESTINAL DISTURBANCES, CENTRAL NERVOUS SYSTEM DEPRESSION, INTOXICATION, LIVER DAMAGE, KIDNEY DAMAGE, PULMONARY EDEMA.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE**

EYE, SKIN, RESPIRATORY DISORDERS  
KIDNEY DISORDERS

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**SECTION 4: FIRST-AID MEASURES**

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**INHALATION**

REMOVE TO FRESH AIR. RESTORE AND SUPPORT CONTINUED BREATHING.  
GET EMERGENCY MEDICAL ATTENTION.  
HAVE TRAINED PERSON GIVE OXYGEN IF NECESSARY. GET MEDICAL HELP FOR ANY BREATHING DIFFICULTY.  
REMOVE TO FRESH AIR IF INHALATION CAUSES EYE WATERING, HEADACHES, DIZZINESS, OR OTHER DISCOMFORT.

**SKIN CONTACT**

FLUSH FROM SKIN WITH WATER. THEN WASH THOROUGHLY WITH SOAP AND WATER. REMOVE CONTAMINATED CLOTHING.  
WASH CONTAMINATED CLOTHING BEFORE RE-USE.

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**SECTION 4: FIRST-AID MEASURES**

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**EYE CONTACT** FLUSH IMMEDIATELY WITH LARGE AMOUNTS OF WATER, ESPECIALLY UNDER LIDS FOR AT LEAST 15 MINUTES. IF IRRITATION OR OTHER EFFECTS PERSIST, OBTAIN MEDICAL TREATMENT.

**INGESTION** IF SWALLOWED, OBTAIN MEDICAL TREATMENT IMMEDIATELY.

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**SECTION 5: FIRE-FIGHTING MEASURES**

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**FLASH POINT (BETA)** 60 F./ 16 C. **LOWER EXPLOSIVE LIMIT** 1.4 (%)  
**UPPER EXPLOSIVE LIMIT** 11.2 (%)

**FIRE EXTINGUISHING MEDIA**  
DRY CHEMICAL OR FOAM  
WATER FOG.  
CARBON DIOXIDE.

**UNUSUAL FIRE AND EXPLOSION HAZARDS**  
CLOSED CONTAINERS MAY EXPLODE WHEN EXPOSED TO EXTREME HEAT OR FIRE.  
VAPORS MAY IGNITE EXPLOSIVELY AT AMBIENT TEMPERATURES.  
VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL LONG DISTANCES TO A SOURCE OF IGNITION AND FLASH BACK.  
VAPORS CAN FORM EXPLOSIVE MIXTURES IN AIR AT ELEVATED TEMPERATURES.  
CLOSED CONTAINERS MAY BURST IF EXPOSED TO EXTREME HEAT OR FIRE.  
MAY DECOMPOSE UNDER FIRE CONDITIONS EMITTING IRRITANT AND/OR TOXIC GASES.

**FIRE FIGHTING PROCEDURES**  
WATER MAY BE USED TO COOL AND PROTECT EXPOSED CONTAINERS. FIREFIGHTERS SHOULD USE FULL PROTECTIVE CLOTHING, EYE PROTECTION, AND SELF-CONTAINED BREATHING APPARATUS. SELF-CONTAINED BREATHING APPARATUS RECOMMENDED.

**HAZARDOUS DECOMPOSITION OR COMBUSTION PRODUCTS**  
CARBON MONOXIDE, CARBON DIOXIDE, ACRID FUMES, OXYGEN.

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**SECTION 6: ACCIDENTAL RELEASE MEASURES**

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**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED**  
COMPLY WITH ALL APPLICABLE HEALTH AND ENVIRONMENTAL REGULATIONS.  
ELIMINATE ALL SOURCES OF IGNITION. VENTILATE AREA.  
VENTILATE AREA WITH EXPLOSION-PROOF EQUIPMENT. SPILLS MAY BE COLLECTED WITH ABSORBENT MATERIALS. USE NON-SPARKING TOOLS. EVACUATE ALL UNNECESSARY PERSONNEL. PLACE COLLECTED MATERIAL IN PROPER CONTAINER.  
COMPLETE PERSONAL PROTECTIVE EQUIPMENT MUST BE USED DURING CLEANUP.  
LARGE SPILLS - SHUT OFF LEAK IF SAFE TO DO SO. DIKE AND CONTAIN SPILL. PUMP TO STORAGE OR SALVAGE VESSELS. USE ABSORBENT TO PICK UP EXCESS RESIDUE. KEEP SALVAGEABLE MATERIAL. AND RINSE WATER OUT OF SEWERS AND WATER COURSES.  
SMALL SPILLS - USE ABSORBENT TO PICK UP RESIDUE AND DISPOSE OF PROPERLY.

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**SECTION 7 HANDLING AND STORAGE**


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**HANDLING AND STORAGE**

STORE BELOW 80F. KEEP AWAY FROM HEAT, SPARKS AND OPEN FLAME.

**OTHER PRECAUTIONS**

USE ONLY WITH ADEQUATE VENTILATION. DO NOT TAKE INTERNALLY. KEEP OUT OF REACH OF CHILDREN. AVOID CONTACT WITH SKIN AND EYES, AND BREATHING OF VAPORS. WASH HANDS THOROUGHLY AFTER HANDLING, ESPECIALLY BEFORE EATING OR SMOKING. KEEP CONTAINERS TIGHTLY CLOSED AND UPRIGHT WHEN NOT IN USE. AVOID CONDITIONS WHICH RESULT IN FORMATION OF INHALABLE PARTICLES SUCH AS SPRAYING OR ABRADING (SANDING) PAINTED SURFACES. IF SUCH CONDITIONS CANNOT BE AVOIDED, USE APPROPRIATE RESPIRATORY PROTECTION AS DIRECTED UNDER EXPOSURE CONTROLS/PERSONAL PROTECTION. EMPTY CONTAINERS MAY CONTAIN HAZARDOUS RESIDUES. GROUND EQUIPMENT WHEN TRANSFERRING TO PREVENT ACCUMULATION OF STATIC CHARGE.

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**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**


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COMMON NAME : METHYL ISOBUTYL KETONE

CAS NUMBER: 108-10-1

ACGIH(TWA): 50 PPM

ACGIH(STEL): 75 PPM

OSHA(TWA): 100 PPM

COMMON NAME : XYLENE

CAS NUMBER: 1330-20-7

ACGIH(TWA): 100 PPM

ACGIH(STEL): 150 PPM

OSHA(TWA): 100 PPM

COMMON NAME : TITANIUM DIOXIDE

CAS NUMBER: 13463-67-7

ACGIH(TWA): 10 MG/M3

OSHA(TWA): 10 MG/M3

COMMON NAME : QUARTZ

CAS NUMBER: 14808-60-7

ACGIH(TWA): 0.1 MG/M3

OSHA(TWA): 0.1 MG/M3

COMMON NAME : ALUMINUM HYDROXIDE

CAS NUMBER: 21645-51-2

ACGIH(TWA): 10 MG/M3

OSHA(TWA): 5 MG/M3

COMMON NAME : FORMALDEHYDE

CAS NUMBER: 50-00-0

ACGIH(TWA): 0.1 PPM

OSHA(TWA): 0.75 PPM  
OSHA(STEL): 2 PPM

COMMON NAME : N-AMYL ACETATE

CAS NUMBER: 628-63-7

ACGIH(TWA): 100 PPM

OSHA(TWA): 100 PPM

COMMON NAME : AMORPHOUS SILICA

CAS NUMBER: 7631-86-2

ACGIH(TWA): 10 MG/M3

OSHA(TWA): 6 MG/M3

**RESPIRATORY PROTECTION**

CONTROL ENVIRONMENTAL CONCENTRATIONS BELOW APPLICABLE EXPOSURE STANDARDS WHEN USING THIS MATERIAL. WHEN RESPIRATORY PROTECTION IS DETERMINED TO BE NECESSARY, USE A

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**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

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NIOSH/MSHA (CANADIAN Z94.4) APPROVED ELASTOMERIC SEALING-SURFACE FACEPIECE RESPIRATOR OUTFITTED WITH ORGANIC VAPOR CARTRIDGES AND PAINT SPRAY (DUST/MIST) PREFILTERS. DETERMINE THE PROPER LEVEL OF PROTECTION BY CONDUCTING APPROPRIATE AIR MONITORING. CONSULT 29CFR1910.134 FOR SELECTION OF RESPIRATORS (CANADIAN Z94.4).

**VENTILATION** PROVIDE DILUTION VENTILATION OR LOCAL EXHAUST TO PREVENT BUILD-UP OF VAPORS.  
USE EXPLOSION-PROOF EQUIPMENT. USE NON-SPARKING EQUIPMENT.

**PERSONAL PROTECTIVE EQUIPMENT**  
EYE WASH, SAFETY SHOWER, SAFETY GLASSES OR GOGGLES.  
IMPERVIOUS GLOVES, IMPERVIOUS CLOTHING.

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**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

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VAPOR PRESSURE:	NOT AVAILABLE	SPECIFIC GRAVITY:	1.531
BOILING RANGE:	244-295F/18-146C	WEIGHT PER GALLON:	12.75/ 15.31IMP
EVOLATILE BY VOLUME:	43.20		
PHYSICAL STATE:	LIQUID	APPEARANCE	WHITE
SOLUBILITY IN WATER:	NOT AVAILABLE	PH:	NOT AVAILABLE

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**SECTION 10: STABILITY AND REACTIVITY**

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**UNDER NORMAL CONDITIONS**  
STABLE  
SEE SECTION 5 FIRE FIGHTING MEASURES

**MATERIALS TO AVOID**  
OXIDIZERS, ACIDS, REDUCING AGENTS, BASES, ALDEHYDES, AMINES,  
NITRIC ACID.  
NITRATES  
CHLORINATED RUBBER

**CONDITIONS TO AVOID**  
ELEVATED TEMPERATURES, CONTACT WITH OXIDIZING AGENT, SPARKS,  
OPEN FLAME.  
IGNITION SOURCES

**HAZARDOUS POLYMERIZATION**  
WILL NOT OCCUR

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**SECTION 11: TOXICOLOGICAL INFORMATION**

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COMMON NAME :	METHYL ISOBUTYL KETONE			
CAS NUMBER:	108-10-1			
CARCINOGENICITY LISTED BY:	NTP NO	IARC NO	OSHA NO	ACGIH NO
LD50:	20.00 GM/KG SKN RBT			
LD50:	2080.00 MG/KG ORL RAT			

COMMON NAME :	PROPYLENE GLYCOL MONOMETHYL ETHER			
CAS NUMBER:	108-65-6			
CARCINOGENICITY LISTED BY:	NTP NO	IARC NO	OSHA NO	ACGIH NO
LD50:	5.00 GM/KG SKN RBT			

## SECTION 11: TOXICOLOGICAL INFORMATION

LD50: 8532.00 MG/KG ORL RAT  
LC50: 4345.00 PPM IHL RAT

COMMON NAME : XYLENE

CAS NUMBER: 1330-20-7

CARCINOGENICITY LISTED BY: NTP NO

IARC NO

OSHA NO

ACGIH NO

LD50: >1700.00 MG/KG SKN RBT

LD50: 4300.00 MG/KG ORL RAT

LC50: 5000.00 PPM/4HR IHL RAT

COMMON NAME : TITANIUM DIOXIDE

CAS NUMBER: 13463-67-7

CARCINOGENICITY LISTED BY: NTP NO

IARC NO

OSHA NO

ACGIH NO

LD50: 24.00 GM/KG ORL RAT

LC50: 6820.00 MG/M3/4HR IHL RAT

COMMON NAME : QUARTZ

CAS NUMBER: 14808-60-7

CARCINOGENICITY LISTED BY: NTP YES

IARC YES 1

OSHA NO

ACGIH NO

COMMON NAME : ALUMINUM HYDROXIDE

CAS NUMBER: 21645-51-2

CARCINOGENICITY LISTED BY: NTP NO

IARC NO

OSHA NO

ACGIH NO

COMMON NAME : EPOXY RESIN

CAS NUMBER: 25034-25-3

CARCINOGENICITY LISTED BY: NTP NO

IARC NO

OSHA NO

ACGIH NO

LD50: >2000.00 MG/KG SKN RBT

LD50: >2000.00 MG/KG ORL RAT

COMMON NAME : FORMALDEHYDE

CAS NUMBER: 50-00-0

CARCINOGENICITY LISTED BY: NTP YES B

IARC YES 2A

OSHA YES

ACGIH YES A2

LD50: 100.00 MG/KG ORL RAT

LC50: 203.00 MG/M3 IHL PIG

COMMON NAME : 2-METHYLBUTYL ETHANOATE

CAS NUMBER: 624-41-9

CARCINOGENICITY LISTED BY: NTP NO

IARC NO

OSHA NO

ACGIH NO

COMMON NAME : N-AMYL ACETATE

CAS NUMBER: 628-63-7

CARCINOGENICITY LISTED BY: NTP NO

IARC NO

OSHA NO

ACGIH NO

LD50: > 17.50 GM/KG SKN RBT

LD50: 7.40 GM/KG ORL RBT

COMMON NAME : AMORPHOUS SILICA

CAS NUMBER: 7631-86-9

CARCINOGENICITY LISTED BY: NTP NO

IARC NO

OSHA NO

ACGIH NO

## SUPPLEMENTAL HEALTH INFORMATION

CONTAINS A CHEMICAL THAT IS READILY ABSORBED THROUGH SKIN.  
CONTAINS A CHEMICAL THAT MAY BE ABSORBED THROUGH SKIN.  
NOTICE - REPORTS HAVE ASSOCIATED REPEATED AND PROLONGED  
OCCUPATIONAL OVEREXPOSURE TO SOLVENTS WITH PERMANENT BRAIN  
AND NERVOUS SYSTEM DAMAGE. INTENTIONAL MISUSE BY  
DELIBERATELY CONCENTRATING AND INHALING THE CONTENTS  
MAY BE HARMFUL OR FATAL.  
OTHER EFFECTS OF OVEREXPOSURE MAY INCLUDE TOXICITY TO LIVER,  
KIDNEY, CENTRAL NERVOUS SYSTEM.

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**SECTION 11: TOXICOLOGICAL INFORMATION**


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**CARCINOGENICITY** CONTAINS FORMALDEHYDE, A POTENTIAL CANCER HAZARD. RATS EXPOSED TO FORMALDEHYDE VIA INHALATION DEVELOPED CANCER OF THE NASAL CAVITY. EVIDENCE IN HUMANS IS LIMITED (NASAL AND NASOPHARYNGEAL CANCER). FORMALDEHYDE IS LISTED AS A CARCINOGEN BY OSHA, PROBABLE HUMAN CARCINOGEN (GROUP 2A) BY IARC, AND ANTICIPATED HUMAN CARCINOGEN BY NTP. OVEREXPOSURE CAN CAUSE EYE, SKIN, AND RESPIRATORY TRACT IRRITATION, AND SKIN AND RESPIRATORY SENSITIZATION. CONTAINS CRYSTALLINE SILICA WHICH IS CONSIDERED A HAZARD BY INHALATION. IARC HAS CLASSIFIED CRYSTALLINE SILICA AS CARCINOGENIC TO HUMANS (GROUP 1). CRYSTALLINE SILICA IS ALSO A KNOWN CAUSE OF SILICOSIS, A NONCANCEROUS LUNG DISEASE. NTP HAS CLASSIFIED CRYSTALLINE SILICA A REASONABLY ANTICIPATED CARCINOGEN.

**REPRODUCTIVE EFFECTS** NO REPRODUCTIVE EFFECTS ARE ANTICIPATED

**MUTAGENICITY** NO MUTAGENIC EFFECTS ARE ANTICIPATED

**TERATOGENICITY** NO TERATOGENIC EFFECTS ARE ANTICIPATED

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**SECTION 12: ECOLOGICAL INFORMATION**


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NO ECOLOGICAL TESTING HAS BEEN DONE BY ICI PAINTS ON THIS PRODUCT AS A WHOLE.

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**SECTION 13: DISPOSAL CONSIDERATIONS**


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**WASTE DISPOSAL** DISPOSE IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS. AVOID DISCHARGE TO NATURAL WATERS.

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**SECTION 14: TRANSPORT INFORMATION**


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**DOT** PAINT, 3, UN1263, PGII, LTD. QTY.

**IMDG** NOT AVAILABLE

**IATA** NOT AVAILABLE

**TDG** NOT AVAILABLE

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**SECTION 15: REGULATORY INFORMATION**


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	SARA 302	SARA 313	CERCLA 302.4	HAZ POLLUTANT	AIR	MARINE POLYNT
CAS NUMBER: 109-10-1	NO	YES	YES	YES	NO	
COMMON NAME: METHYL ISOBUTYL KETONE						
CAS NUMBER: 1330-20-7	NO	YES	YES	YES	NO	
COMMON NAME: XYLENE						
CAS NUMBER: 50-00-0	YES	YES	YES	YES	NO	

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**SECTION 15: REGULATORY INFORMATION**

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COMMON NAME : FORMALDEHYDE

CAS NUMBER: 628-63-7 NO NO YES NO NO

COMMON NAME : N-AMYL ACETATE

AS OF THE DATE OF THIS MSDS, ALL OF THE COMPONENTS IN THIS PRODUCT ARE LISTED (OR ARE OTHERWISE EXEMPT FROM LISTING) ON THE TSCA INVENTORY. THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CPR (CONTROLLED PRODUCTS REGULATIONS) AND THE MSDS CONTAINS ALL THE INFORMATION REQUIRED BY THE CPR.

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**SECTION 16: OTHER INFORMATION**

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THE INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE AT THE TIME OF PREPARATION OF THIS DATA SHEET AND WHICH ICI PAINTS BELIEVES TO BE RELIABLE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THIS DATA. ICI PAINTS SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS INFORMATION, OR OF ANY PRODUCT, METHOD OR APPARATUS MENTIONED AND YOU MUST MAKE YOUR OWN DETERMINATION OF ITS SUITABILITY AND COMPLETENESS FOR YOUR OWN USE, FOR THE PROTECTION OF THE ENVIRONMENT, AND THE HEALTH AND SAFETY OF YOUR EMPLOYEES AND USERS OF THIS MATERIAL. COMPLIES WITH OSHA HAZARD COMMUNICATION STANDARD 29CFR1910.1200.